PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference	FOR FURTHER ACTION	See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416).
International Application No.	International Filing Date *(day/month/year)*	Priority Date *(day/month/year)*
PCT/AU2003/000491	24 April 2003	26 April 2002

International Patent Classification (IPC) or national classification and IPC

Int. Cl. [7] A61B 3/13, 1/04 G02B 6/26, 21/00, 26/10

Applicant

OPTISCAN PTY LTD et al

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.

2. This REPORT consists of a total of 3 sheets, including this cover sheet.

   [X] This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

   These annexes consist of a total of **6** sheet(s).

3. This report contains indications relating to the following items:

   - I [X] Basis of the report
   - II [ ] Priority
   - III [ ] Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
   - IV [ ] Lack of unity of invention
   - V [X] Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
   - VI [ ] Certain documents cited
   - VII [ ] Certain defects in the international application
   - VIII [ ] Certain observations on the international application

Date of submission of the demand	Date of completion of the report
18 August 2003	12 March 2004
Name and mailing address of the IPEA/AU	Authorized Officer
AUSTRALIAN PATENT OFFICE PO BOX 200, WODEN ACT 2606, AUSTRALIA E-mail address: pct@ipaustralia.gov.au Facsimile No. (02) 6285 3929	**MATTHEW FORWARD** Telephone No. (02) 6283 2606

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/AU2003/000491

I. Basis of the report

1. With regard to the elements of the international application:*

- [ ] the international application as originally filed.
- [X] the description, pages **4 to 27,** as originally filed,
  pages , filed with the demand,
  pages **1, 2, 3,** received on **3 February 2004** with the letter of **2 February 2004**
- [X] the claims, pages , as originally filed,
  pages , as amended (together with any statement) under Article 19,
  pages , filed with the demand,
  pages **28 to 30,** received on **3 February 2004** with the letter of **2 February 2004**
- [X] the drawings, pages **1/15 to 15/15,** as originally filed,
  pages , filed with the demand,
  pages , received on with the letter of
- [ ] the sequence listing part of the description:
  pages , as originally filed
  pages , filed with the demand
  pages , received on with the letter of

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language which is:

- [ ] the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- [ ] the language of publication of the international application (under Rule 48.3(b)).
- [ ] the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- [ ] contained in the international application in written form.
- [ ] filed together with the international application in computer readable form.
- [ ] furnished subsequently to this Authority in written form.
- [ ] furnished subsequently to this Authority in computer readable form.
- [ ] The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- [ ] The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

4. [ ] The amendments have resulted in the cancellation of:
   - [ ] the description, pages
   - [ ] the claims, Nos.
   - [ ] the drawings, sheets/fig.

5. [ ] This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* *Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).*

** *Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report*

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1 to 19	YES
	Claims		NO
Inventive step (IS)	Claims	1 to 19	YES
	Claims		NO
Industrial applicability (IA)	Claims	1 to 19	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

The following documents identified in the International Search Report have been considered for the purposes of this report:

D1 Gmitro et al (1993)
D2 US 5659642 (KING et al)
D3 JP 11-133306 (YOKOGAWA DENKI KK)
D4 US 6377842 (POGUE et al)
D5 WO 02/03118 (THE GENERAL HOSPITAL CORPORATION)

The present application defines a confocal microscope or endoscope with an optical fibre bundle to receive and return fluorescent return light and a beam-splitter for receiving the return light and diverging a fluorescent component from the return light.

None of the documents D1 to D5 disclose a beam splitter that receives the return light and divergs the fluorescent component.

Document D1 is directed to an optical scanning confocal microscope with a fibre-optic bundle that allows images to be captured in otherwise inaccessible places. Figure 2 illustrates fluorescence images obtained with the system of D1. Document D2 has the same applicants as the present case and is directed to similar subject matter, excluding the beam splitter with the noted functions. Document D3 provides a similar device to D1, with the additional features of objective lens (7) and lens (9, 11) to focus the image and returning light respectively. In document D4, light source (10) provides incident light to tissue and fluorescence from said tissue is measured using a fibre optic bundle linked to photomultipliers (15 and 17). Document D5 recites a confocal microscope of similar construction to the present application with a beam splitter (BS) between the fibre optic bundle and the detector and not between the bundle and the target.

Articles 33(2) to 33(4) of the PCT are satisfied, claims 1 to 19 are novel, inventive and possess an industrial application.